Amendments to the Claims:

- 1. *(Original)* A prosthesis to replace all or a portion of a natural facet joint on a vertebral body comprising a prosthesis body accommodating fixation to the vertebral body at or near a pedicle and without support by a lamina, the prosthesis body including a fastening element installed within the vertebral body at or near a pedicle, and an artificial facet joint structure carried by the prosthesis body at a location spaced from the fastening element, the artificial facet joint structure being adapted and configured to replace all or a portion of a natural facet joint.
- 2. (Currently amended) A prosthesis according to claim 1 wherein the <u>prosthesis is</u> configured such that the fastening element is located superior to the artificial facet joint structure when the prosthesis body is fixed to the vertebral body.
- 3. (Currently amended) A prosthesis according to claim 1 wherein the <u>prosthesis is configured such that the artificial facet joint structure is posterior to the pedicle containing the fastening element when the prosthesis body is fixed to the vertebral body.</u>
- 4. *(Currently amended)* A prosthesis according to claim 1 wherein the prosthesis body includes a caudal structure that extends from the fastening element toward a cephalad portion of a natural facet joint when the prosthesis body is fixed to the vertebral body, and wherein the artificial facet joint structure is carried on the caudal structure.
- 5. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is adapted and configured to articulate with a portion of a facet joint of an adjoining vertebral body.
- 6. (Original) A prosthesis according to claim 1 wherein the artificial facet joint structure is adapted and configured to replace a cephalad portion of a natural facet joint.
- 7. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is adapted and configured to replace a cephalad portion of a natural facet joint and articulate with a caudal portion of a facet joint of an adjoining vertebral body.

Response dated: August 7, 2007

Appln. No. 10/658,449; Filed: September 9, 2003

Response to Office Action of May 7, 2007

- 8. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is fixed to the prosthesis body.
- 9. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is fixed to the prosthesis body by adhesive or cement.
- 10. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is fixed to the prosthesis body by mechanical attachment.
- 11. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is removably carried by the prosthesis body.
- 12. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is removably attached to the prosthesis body by frictional engagement.
- 13. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is removably attached to the prosthesis body by a Morse taper.
- 14. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure comprises an insert fitted to the prosthesis body.
- 15. (Original) A prosthesis according to claim 1 wherein the artificial facet joint structure comprises an insert fitted by frictional engagement to the prosthesis body.
- 16. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure comprises an insert fitted by a Morse taper to the prosthesis body.
- 17. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure comprises a removable insert fitted to the prosthesis body.
- 18. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure pivots with respect to the prosthesis body.

Response dated: August 7, 2007

Appln. No. 10/658,449; Filed: September 9, 2003

Response to Office Action of May 7, 2007

19. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is made of at least one selected prosthetic material.

20. (Currently amended) A prosthesis according to claim [[1]] 19 wherein the at least one selected prosthetic material includes is selected from a group consisting of polyethylene, rubber, tantalum, titanium, chrome cobalt, surgical steel, bony in-growth material, ceramic, artificial bone, or a combination thereof.

21. (Previously canceled)

22. *(Original)* A prosthesis according to claim 1 wherein the prosthesis body includes a bony in-growth material.

23. (Previously canceled)

- 24. *(Original)* A prosthesis according to claim 1 wherein the fastening element includes a bony in-growth material.
- 25. (Withdrawn) A method of replacing, on a vertebral body, all or a portion of a natural facet joint using the prosthesis defined in claim 1 to provide improved support for the spinal column, the method comprising the steps of (i) removing all or a portion of a natural articular process from the vertebral body, and (ii) fixing the prosthesis as defined in claim 1 to the vertebral body to replace the removed portion of the natural articular process with the artificial facet joint structure.
- 26. (Withdrawn) A method according to claim 25 further including a step of removing at least some of the lamina from the vertebral body.
- 27. (Withdrawn) A method according to claim 25 further including a step of removing at least part of a pedicle from the vertebral body.